



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-1490; Project Identifier MCAI-2022-01177-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. This proposed AD was prompted by a report of a partially broken tail rotor drive fan support (fan support) and a completely broken fan support. This proposed AD would require repetitively inspecting certain part-numbered fan supports (affected parts), and depending on the results, removing an affected part from service and replacing it with a serviceable part, which constitutes terminating action for the repetitive inspections. This proposed AD would also require replacing affected parts with serviceable parts unless already accomplished and prohibit installing an affected part on any helicopter, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*Ad Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1490; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For EASA material that is incorporated by reference (IBR) in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet: [easa.europa.eu](https://easa.europa.eu). You may find this IBR material on the EASA website at [ad.easa.europa.eu](https://ad.easa.europa.eu).

- You may view this this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1490.

*Other Related Service Information:* For Airbus Helicopters service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [airbus.com/helicopters/services/technical-support.html](https://airbus.com/helicopters/services/technical-support.html). This service information is also available at the FAA contact information under *Material Incorporated by Reference* above.

**FOR FURTHER INFORMATION CONTACT:** Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7799; email [9-AVS-AIR-BACO-COS@faa.gov](mailto:9-AVS-AIR-BACO-COS@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-1490; Project Identifier MCAI-2022-01177-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7799; email 9-AVS-AIR-BACO-COS@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued a series of EASA ADs with the most recent being EASA AD 2022-0180, dated August 29, 2022 (EASA AD 2022-0180), to correct an unsafe condition for Airbus Helicopters, formerly Eurocopter, Eurocopter France, Aerospatiale, Model AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, and AS 355 N helicopters, all serial numbers.

This proposed AD was prompted by a report of a partially broken right-hand side (RH) fan support and a completely broken left-hand side (LH) fan support found during scheduled maintenance on a Model AS355 helicopter. The FAA is proposing this AD to detect a cracked or broken fan support leg. The unsafe condition, if not addressed, could result in loss of main gearbox and engine oil cooling function, loss of tail rotor drive, and subsequent loss of control of the helicopter. See EASA AD 2022-0180 for additional background information.

## **Related Service Information Under 1 CFR Part 51**

EASA AD 2022-0180 requires repetitively inspecting certain part-numbered RH and LH fan supports for a crack and broken leg and, if there is any crack or broken leg, replacing the affected fan support with a serviceable fan support. If the replacement is not required as a result of the inspection, EASA AD 2022-0180 requires the replacement at a longer compliance time. EASA AD 2022-0180 also states that the replacement constitutes terminating action for the repetitive inspections and prohibits installing an affected part on any helicopter.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Other Related Service Information**

The FAA also reviewed Airbus Helicopters Alert Service Bulletin No. AS355-05.00.88, Revision 1, dated July 20, 2022. This service information specifies procedures for inspecting the RH and LH fan supports for a crack and failure (broken leg), replacing an affected part with a serviceable part, and performing a balancing of the tail rotor drive

shaft.

### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of these same type designs.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require accomplishing the actions specified in the EASA AD, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under "Differences Between this Proposed AD and the EASA AD."

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0180 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0180 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022-0180 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2022-0180. Service information referenced in EASA AD 2022-0180 for compliance will be available at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2022-1490 after the FAA final rule is published.

## **Differences Between this Proposed AD and the EASA AD**

EASA AD 2022-0180 requires replacing each affected part with a serviceable part if any crack or broken leg is found during any required inspection or if the replacement was not previously performed as a result of an inspection, whereas this proposed AD would require removing each affected part from service and replacing with a serviceable part if any crack or broken leg is found during any required inspection or if the replacement was not previously performed as a result of an inspection.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 31 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Visually inspecting a fan support for a crack and broken leg would take about 1 work-hour for an estimated cost of \$170 per helicopter (2 fan supports per helicopter) per inspection cycle and up to \$5,270 for the U.S. fleet per inspection cycle.

Replacing a fan support would take about 8 work-hours and parts would cost about \$600 for an estimated cost of \$1,280 per replacement and up to \$39,680 for the U.S. fleet.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Airbus Helicopters:** Docket No. FAA-2022-1490; Project Identifier MCAI-2022-01177-R.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters, all serial numbers, certificated in any category.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6500, Tail Rotor Drive System.

**(e) Unsafe Condition**

This AD was prompted by a report of a partially broken right-hand side tail rotor drive fan support (fan support) and a completely broken left-hand side fan support. The FAA is issuing this AD to detect a cracked or broken fan support leg. The unsafe condition, if not addressed, could result in loss of main gearbox and engine oil cooling function, loss of tail rotor drive, and subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency AD 2022-0180, dated August 29, 2022 (EASA AD 2022-0180).

**(h) Exceptions to EASA AD 2022-0180**

(1) Where EASA AD 2022-0180 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2022-0180 refers to the effective dates specified in paragraphs (h)(2)(i) and (ii) of this AD, this AD requires using the effective date of this AD.

(i) May 3, 2022 (the effective date of EASA AD 2022-0069, dated April 19, 2022).

(ii) The effective date of EASA AD 2022-0180.

(3) Where paragraphs (2) and (3) of EASA AD 2022-0180 specify “replacing each affected part with a serviceable part,” for this AD, replace that text with “removing each affected part from service and replacing it with a serviceable part.”



(4) Where the service information referenced in EASA AD 2022-0180 specifies to use tooling, this AD allows the use of equivalent tooling.

(5) Where the service information referenced in EASA AD 2022-0180 specifies to discard parts, this AD requires removing those parts from service.

(6) The “Remarks” section of EASA AD 2022-0180 does not apply to this AD.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2022-0180 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Special Flight Permit**

Special flight permits are prohibited.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (m) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Additional Information**

For more information about this AD, contact Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7799; email 9-AVS-AIR-BACO-COS@faa.gov.

**(m) Materials Incorporated By Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0180, dated August 29, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0180, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet: [easa.europa.eu](http://easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu)

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on November 29, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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